



Programme

vgbe Workshop “Materials and Quality Assurance”

10th and 11th May 2023

Wednesday, 10th May 2023

08:00	Registration, Welcome-Coffee	
09:00 - 09:20	Opening	Dr Jörg Bareiß <i>EnBW Energie Baden-Württemberg AG</i> Dr Frank Neumann <i>RWE Power AG</i> Jens Ganswind-Eyberg <i>vgbe energy e.V.</i>
09:20 - 09:40	vgbe 2025 – The New Face of vgbe	Dr Thomas Eck <i>vgbe energy e.V.</i>
09:40 - 10:00	Hydrogen damage: basics, research and analytics	Jens Jürgensen Prof Dr-Ing Michael Pohl Ruhr-Universität Bochum
10:00 - 10:30	Discussion	Dr Thomas Eck <i>vgbe energy e.V.</i> Dr Jörg Bareiß <i>EnBW Energie Baden-Württemberg AG</i>
10:30 - 11:00	Coffee break	
	Session “Hydrogen I”	Dr Frank Neumann <i>RWE Power AG</i>
11:00 - 11:20	Requirements of a plant operator for material qualification with regard to H2 readiness	Dr Simon Heckmann <i>RWE Power AG</i>
11:20 - 11:40	Challenges with metallic materials for the transport and storage of hydrogen	Dr Oded Sobol <i>Bundesanstalt für Materialforschung und -prüfung</i>
11:40 - 12:00	Material testing and modelling for safe design and operation of components in hydrogen transportation systems	Dr Frank Schweizer Dr Ken Wackermann Heiner Oesterlin Thorsten Michler <i>Fraunhofer-Institut für Werkstoffmechanik IWM</i>



12:00 - 12:30	Discussion	
12:30 - 13:30	Lunch	
	Session "Hydrogen II"	Patrick Kozlowski <i>Lausitz Energie Kraftwerke AG</i>
13:30 - 13:50	Overview on the vgbe Project HyPower: „Development of alternative hydrogen embrittlement testing methods“	Brian Kagay <i>Materialprüfungsanstalt Universität Stuttgart</i> Dr Christian Kontermann <i>IfW Darmstadt</i> Thorsten Michler <i>Fraunhofer-Institut für Werkstoffmechanik IWM</i>
13:50 - 14:20	Material questions and qualifications of current Uniper-H2-Projects	Dr Mirko Bader <i>Uniper Kraftwerke GmbH</i>
14:20 - 14:40	Materials knowledge underpinning a low carbon future	Michael Gagliano <i>Electric Power Research Institute</i>
14:40 - 15:00	Discussion	
15:00 - 15:30	Coffee break	
	Session "Damages I"	Dr Barbara Waldmann <i>RWE Power AG</i>
15:30 - 15:50	Thermal ageing of stellited hollow cylinder samples - VGB Research Project 416	Stephan Elsen-Humberg <i>RWE Power AG</i>
15:50 - 16:10	Influence of a P92 typical post weld heat treatment on the long-term properties of Alloy 617 at 600°C power plant operation	Dr Gerhard Maier <i>Fraunhofer-Institut für Werkstoffmechanik IWM</i>
16:10 - 16:30	Erosion repair of ST LP casings	Ken Mitchell Carlos Fernandes <i>RWE Generation UK</i>
16:30 - 17:00	Discussion	
18:30	Evening event	

Thursday, 11th May 2023

	Session "Damages II"	Dr Andreas Klenk <i>Materialprüfungsanstalt Universität Stuttgart</i>
08:30 - 08:50	Damages to drainage systems - current examples and repair concepts	Dr Christian Ullrich Rolf Glaser Uwe Wegge <i>vgbe energy service GmbH</i>
08:50 - 09:10	Strain induced corrosion cracking as a relevant failure mechanism in thermal power stations	Dr Mirko Bader <i>Uniper Kraftwerke GmbH</i>
09:10 - 09:30	Deterioration at the boundary GT outlet/HRSG inlet	Audrey Platon Azadeh Stofer <i>EDF</i>
09:30 - 10:00	Discussion	
10:00 - 10:30	Coffee break	
	Session "Material I"	Dr Mirko Bader <i>Uniper Kraftwerke GmbH</i>
10:30 - 10:50	Highlights and selected results of the joint R&D Project "VGB Calculation Methods" including perspectives on updates of the European standard on calculation methods	Dr Jürgen Rudolph <i>Framatome GmbH</i>
10:50 - 11:10	Creep-fatigue assessment of power plant steels - recent achievements and current research activities at Fraunhofer IWM	Dr Gerhard Maier Prof Hermann Riedel Heiner Oesterlin <i>Fraunhofer-Institut für Werkstoffmechanik IWM</i>
11:10 - 11:30	Creep fatigue behaviour of P92 welds	Thorben Bender Dr Andreas Klenk Prof Stefan Weihe <i>Materialprüfungsanstalt Universität Stuttgart</i>
11:30 - 11:50	Using the remote diagnostic systems based on virtual testing environment and digital twins to lifetime assessment of power equipment	Dr Marcin Hatłas <i>Pro Novum Ltd</i>
11:50 - 12:20	Discussion	

12:20 - 13:20	Lunch	
	Session "Material II"	Dr Jörg Bareiß <i>EnBW Energie Baden-Württemberg AG</i>
13:20 - 13:40	Review of the relevant knowledge for martensitic steel grade as base for a vgbe-technical-scientific report	Dr Torsten-Ulf Kern <i>Siemens Energy Global GmbH & Co. KG</i>
13:40 - 14:00	Lifetime of dissimilar welds TP347H/P91	Audrey Platon Azadeh Stofer <i>EDF</i>
14:00 - 14:20	Test loop to assess component creep fatigue behaviour	Dr Andreas Klenk <i>Materialprüfungsanstalt Universität Stuttgart</i> Dr Klaus Metzger <i>Grosskraftwerk Mannheim AG</i> Frank Kluger <i>former GE Boiler Deutschland GmbH</i>
14:20 - 14:40	Creep damage characterisation for lifetime evaluation	Dr Andreas Klenk Dr Annett Udoh Rudi Scheck Dr Magdalena Speicher <i>Materialprüfungsanstalt Universität Stuttgart</i>
14:40 - 15:00	Continuous monitoring of GFRP-components by means of acoustic sensors	Dr Barbara Waldmann <i>RWE Power AG</i>
15:00 - 15:30	Discussion	
15:30	End of Workshop	